

ABET Review:  
Bio and Neural Engineering  
Spring 2025

# Course Offerings & Enrollments

Course	Title	Aut23	Win24	Spr24	Aut24	Win25	Spr25
<b>423/523</b>	Introduction to Synthetic Biology (w/ BIOEN, CSE, CHEM E, MOLENG)	80 (EE: 7/2)			69 (EE: 11/1)		
<b>424/524</b>	Advanced Systems and Synthetic Biology (w/ BIOEN, CSE, CHEM E)			30 (EE: 0/2)			33 (EE: 1/2)
<b>460/560</b>	Neural Engineering (w/ BIOEN, CSE)	97 (EE: 18/16)			94 (EE: 18/14)		
<b>461/561</b>	Neural Engineering Tech Studio (w/ BIOEN)			26 (EE: 7/1)			33(EE: 10/0)
<b>466/564</b>	Neural Computation and Engineering Laboratory (w/ BIOEN)		37 (EE: 12/5)			34 (EE: 10/10)	

(EE Undergrad/EE Grads)

# — Course Offerings & Evaluations (items 1-4)

<b>Course</b>	<b>Quarter</b>	<b>Instructor</b>	<b>Participated</b>	<b>Adj. Combined</b>	<b>CEI</b>	<b>Hours/Cr</b>
<b>423/523</b>	Aut24	Seelig	37/65	4.3	4.2	1.9
<b>424/524</b>	Spr24	Marchand	29/30	4.8	4.5	2.3
<b>424/524</b>	Spr25	Marchand	ongoing			
<b>460/560</b>	Aut24	Herron	24/93	4.2	4.5	
<b>461/561</b>	Spr24	Ingraham	23/26	3.9	5.5	2.3
<b>461/561</b>	Spr25	Ingraham	ongoing			
<b>466/564</b>	Win25	Orsborn	28/34	4.5	5.1	2.2

# End of Course Reports and compliance –

**EE 466: Orsborn** – notes modest drop off in lab engagement, will adjust incentives to participate in labs over homework

Missing Quarters	Course
Autumn 2024 (Seelig)	423
Spring 2024 (Marchand)	424
Autumn 2023 (Carothers)	423

**EE 561: Ingraham** - Students regularly request access to lab space with electronics or soldering stations.

# ABET outcomes

1: Solve Problems. 2: Apply Design Considering Constraints. 3: Communication.  
4: Ethics. 5: Teams. 6: Experiment & Analyze Data. 7: Learning

Course	Title	Instructor	Quarter	1	2	3	4	5	6	7
423	Introduction to Synthetic Biology	Seelig	Aut24							
424	Advanced Systems and Synthetic Biology	Marchand	Spr24							
424	Advanced Systems and Synthetic Biology	Marchand	Spr25							
460	Neural Engineering	Herron	Aut24				0/3/3/1			1/1/4/1
461	Neural Engineering Tech Studio	Ingraham	Spr24		0/0/3/2	0/0/2/4		0/0/5/0		
461	Neural Engineering Tech Studio	Ingraham	Spr25							
466	Neural Computation and Engineering Laboratory	Orsborn	Win25	0/2/3/0					0/0/2/3	

# of students: Novice/Developing/Competent/Exemplary

# Problems areas?

- The Neural Engineering sequence – no problems
  - Offered regularly with stable or increasing enrollment
  - Well-integrated across courses
  - Largely satisfies Neural Computation and Engineering Minor and Graduate Certificate programs.
- The Synthetic Biology sequence
  - May have low EE enrollment in some courses
  - Lack of EOCs and ABET outcomes?